

What is claimed is:

1. A method for stacking a first rectangular sheet and a second rectangular sheet, comprising the steps of:

arranging said second sheet bent downward in a projecting shape by supporting two opposing sides oppositely to said first sheet;

bringing said first sheet and said second sheet close to each other to have a predetermined distance;

applying a perpendicular load to said second sheet; and

stacking said first sheet and said second sheet by releasing the supporting of said two opposing sides while said perpendicular load is in an applied state.

2. The sheet stacking method according to claim 1, wherein said perpendicular load is applied to a middle portion of a supporting span in said second sheet.

3. The sheet stacking method according to claim 1, wherein said releasing of the supporting comprises the step of removing the respective two sides simultaneously.

4. The sheet stacking method according to claim 1, wherein a bending amount of said second sheet is controlled to be a specified amount.

5. An apparatus for stacking a first rectangular sheet and a second rectangular sheet, comprising:

a stage having a mounting surface for flatly holding said first sheet;

5 first supporting means adapted to support each of two opposing sides of said second sheet, and movable backward and forward in a direction parallel to said mounting surface; and

loading member for pressing said second sheet supported by said first supporting means in a direction orthogonal to said mounting surface.

6. The sheet stacking apparatus according to claim 5, further comprising:

15 distance adjusting means for adjusting a distance between said first sheet mounted on said stage and said second sheet supported by said first supporting means.

7. The sheet stacking apparatus according to claim 5, further comprising:

20 second supporting means adapted to support each of two sides orthogonal to said two opposing sides of said second sheet, and movable backward and forward in a direction parallel to said mounting surface,

wherein said second supporting means supports said second sheet in a position lower by a specified

distance from said first supporting means.

8. The sheet stacking apparatus according to claim 5, wherein said first supporting means and second supporting means are movable backward and forward independently of each other.

9. A method for manufacturing a liquid crystal display panel having a pair of substrates disposed oppositely to each other with a predetermined distance and secured by sealant formed along a peripheral portion thereof, and liquid crystal sealed in a region inside said sealant between said pair of substrates, comprising the steps of:

(a) flatly supporting one of said pair of substrates;

(b) dropping liquid crystal onto said one substrate;

(c) supporting the other of said pair of substrates so as to be bent by supporting two opposing sides thereof, and a bending amount is controlled to be a specified value;

(d) bringing said one substrate and the other substrate close to each other to reach a predetermined distance;

(e) applying a load in the bending direction of said other substrate with respect to a position having maximum bending of said other substrate and/or a vicinity of the same; and

5 (f) releasing the supporting of said other substrate after the application of said load.

10. The manufacturing method of a liquid crystal display panel according to claim 9, wherein each of said steps (d), (e) and (f) is performed in vacuum.

10 11. The manufacturing method of a liquid crystal display panel according to claim 9, wherein after said step (d), said pair of substrates are aligned with each other, and then said step (e) is executed.

15 12. The manufacturing method of a liquid crystal display panel according to claim 9, after said step (f), further comprising the step of:

20 (g) aligning said pair of substrates each other finely by applying a normal force to a film having high coefficient of static friction which is disposed on said other substrate.

13. The manufacturing method of a liquid crystal display panel according to claim 12, wherein each of said

steps (d), (e), (f) and (g) is performed in vacuum.

14. The manufacturing method of a liquid crystal display panel according to claim 12, wherein said step (g) is executed soon after releasing the supporting of said other substrate.

15. The manufacturing method of a liquid crystal display panel according to claim 12, wherein said normal force is larger than the value of a reaction between said electrodes divided by said coefficient of static friction of said film.

16. An apparatus for manufacturing a liquid crystal display panel in which first and second substrates are disposed oppositely to each other with a predetermined distance and secured by sealant formed along peripheral portions of the first and second substrates in a picture-frame, and liquid crystal sealed in a region inside said sealant between said first and second substrates, comprising:

sealant applying means for applying sealant on said first substrate in a picture-frame;

a dispenser for dropping liquid crystal onto said first substrate applied with said sealant;

stacking means for stacking said first

substrate having the liquid crystal dropped thereon and
said second substrate;

a vacuum chamber for performing said stacking
in vacuum; and

5 sealant curing means for curing sealant for
said stacked first and second substrates,

wherein said stacking means includes:

a stage having a mounting surface for flatly
holding said first substrate;

10 first supporting means adapted to support each
of two opposing sides of said second substrate, and movable
backward and forward in a direction parallel to said
mounting surface;

loading member for pressing said second sub-
15 strate supported by said first supporting means in a
direction orthogonal to said mounting surface; and

distance adjusting means for adjusting a dis-
tance between said first substrate mounted on said stage
and said second substrate supported by said first sup-
20 porting means.

17. An apparatus for manufacturing a liquid crystal
display panel according to claim 16, further comprising a
fine alignment device, wherein said fine alignment device
comprises:

25 a film having high coefficient of static

friction disposed directly on a surface of at least one
substrate of said pair of substrates, and

a loading plate for loading a normal force to
said film.

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